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ABSTRACT

This study was conducted to examine the differences between teacher education graduates who entered teaching the year following graduation and those who did not. A career path model was developed and tested in order to examine the influence of various factors on the career paths of teacher education graduates at various stages. The model provided a framework for studying differences between the two groups on factors in four major areas: (1) personal and background characteristics; (2) preparation program factors; (3) employment factors; and (4) indicators of career satisfaction. Survey instruments were collected from teacher education students (N=200) at the time of graduation and again, 1 year following graduation. Results suggest significant differences between those who entered teaching and those who did not on variables in all four major areas. The career path model has proved to be useful in examining the differences between teacher education graduates in different career path groups at 1 year following graduation. Half the paper consists of statistical tables. (LL)

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Teacher Education Graduates at One Year Following Graduation -- An Examination of Differences Between Those Who Entered Teaching and Those Who Did Not

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Teacher Education Graduates at One Year Following Graduation-- An Examination of Differences Between Those Who Entered Teaching and Those Who Did Not

INTRODUCTION

Considerable attention has focused in recent years on teacher retention. Of particular concern is the attrition that occurs during the early years following preparation. There are data indicating that as many as one-half the teacher education graduates do not enter teaching the year following graduation (Feistritzer, 1984), and that half have left the profession after five years (Mark & Anderson, 1978; Schlechty & Vance, 1981).

Projected teacher shortages (Darling-Hammond, 1984; Feistritzer, 1984; National Governors' Association, 1986) and concerns about the academic ability of our teaching force (Schlechty & Vance, 1981) have resulted in the need for increased understanding about the factors that influence teachers to enter and remain in teaching.

This study was a continuation of research efforts conducted at Iowa State University in which the Career Path Model (Figure 1), was developed and tested to examine the influence of various factors on the career paths of teacher education graduates at various stages in their careers.

Career choice and development theory, particularly that of Super, provided the framework for the Career Path Model and supported the need to include personal and situational factors in the model. Teacher retention models (Chapman & Hutcheson, 1982; Chapman, 1983b; Chapman, 1984; Chapman 1986) and teacher satisfaction models (Chapman & Lowther, 1982; Chapman, 1983a) based upon the career choice and development theories of Holland and Krumboltz were helpful in identifying the major components, or areas, included in the One Year Career Path Model. These four major areas included Personal and Background Characteristics, Preparation Program Factors, Employment Factors, and Indicators of Career Satisfaction.

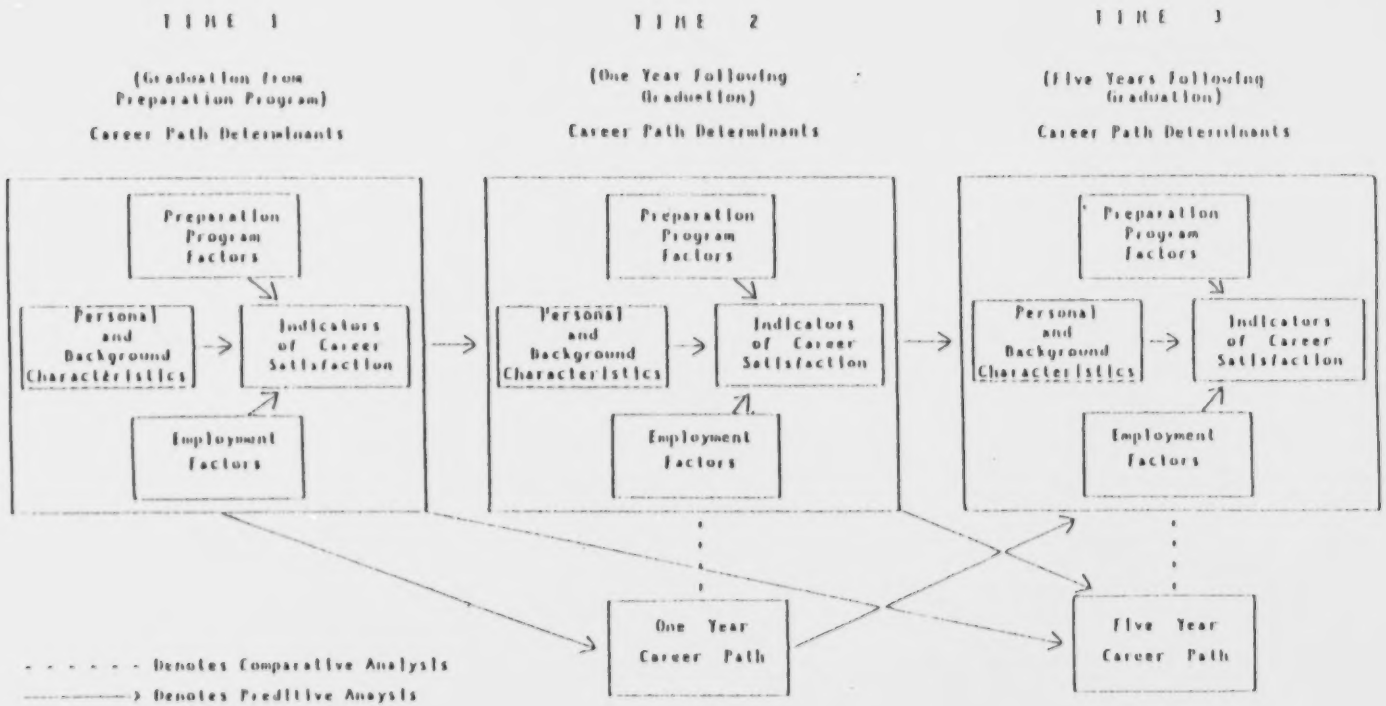

FIGURE 1. Career Path Model as developed and presented in Janet C. Sweeney's dissertation (1987): "Development and testing of a longitudinal model designed to examine the factors that influence the career paths of Iowa State University teacher education graduates"

The Career Path Model is longitudinal and includes three measurement points: graduation from the preparation program, one year following graduation, and five years following graduation. The model allow for both predictive and comparative analyses on factors within the four major areas.

The results of the previous testing of the model (Sweeney, 1987; Kumlung, 1988) indicated that the model was generally supported. Since then additional variables related to teaching performance have been incorporated into the model to make it more comprehensive and to improve its ability to explain the career paths of teachers.

PURPOSE

The purpose of the study was to examine the differences between teacher education graduates who entered teaching the year following graduation and those who did not. Differences between the two groups were examined on factors in the four major areas. Personal and Background Characteristics included (a) gender and (b) academic ability/achievement. Preparation Program Factors included: (a) student teaching, (b) sense of efficacy; (c) teaching performance; and (d) quality of preparation program. The five factors included in Employment Factors were (a) employment expectations at time of graduation, (b) employment reality at one year; (c) employment dissonance between expectations and reality; (d) salary; and (e) teaching level. The three factors included in Indicators of Career Satisfaction included: (a) satisfaction with student teaching; (b) job satisfaction; and (c) willingness to choose teaching again.

METHODS

The study utilized data collected from a comprehensive longitudinal research project conducted for the purpose of evaluating the teacher preparation program at Iowa State University. The teacher education graduates who provided data for this study graduated during the 1987/88 and 1988/89 academic years and completed survey instruments both at the time of graduation and at one year following graduation. The study was limited to graduates from these two years because 1987/88 was the first year that items focusing on teaching performance were incorporated into the survey instruments.

For this study, graduates were classified into two groups: (1) those who reported at the time of graduation that they planned to enter teaching the following academic year and did (T/T); and (2) those who reported at the time of graduation that they did not plan to enter teaching the following academic year and did not (NT/NT). Those who did not follow their planned career plan were dropped from the study. A total of 200 graduates were included in the study. Presented in Table 1 is the number of graduates included in each of the One Year Career Path groups.

Independent t-tests and Chi-square were used to examine differences between the two groups on 43 variables used to measure factors in the four major areas. The significance level was set at $\leq .05$.

RESULTS

The results indicated significant differences between the two groups on variables in each of the four major areas. There were significant differences between the teachers and nonteachers on four of the seven variables within Personal and Background Characteristics. The results of the comparison of the two groups on Personal and Background Characteristics are presented in Table 2. The nonteachers were more likely to be males and to have scored higher on the ACT college entrance examination. When gender and teaching level were combined, female elementary teachers were least likely to be in the nonteaching group and male secondary level teachers were least likely to have entered teaching.

There were significant differences between the teachers and nonteachers on three of the eighteen variables within Preparation Program Factors (Table 3). Those who were teaching, compared to those who were not, rated their teaching performance significantly higher in providing a positive learning environment conducive to learning and in managing instructional activities efficiently and ensuring student time on task. Those who were teaching also rated the quality of their preparation significantly higher than did those who were not teaching.

TABLE 1

One Year Career Path Groups -- Frequency Distribution of Sample

One Year Career Path Groups	Number	Valid Percent
Teach/Teach	164	82.0
Not teach/Not teach	36	18.0
Total	200	100.0

TABLE 2

Personal and Background Characteristics -- Comparison by One-Year Career Path Group

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
GENDER					
Male/Female[a]					
Teach/Teach	164	1.20	0.40	1.58	-2.88**
Not teach/Not teach	36	1.42	0.50		
Female elementary/Not female elementary[b]					
Teach/Teach	164	0.18	0.39	1.58	-2.38*
Not teach/Not teach	36	0.36	0.49		
Male secondary/Not male secondary[c]					
Teach/Teach	164	0.18	0.39	1.52	-2.02*
Not teach/Not teach	36	0.33	0.48		
ACADEMIC ABILITY/ACHIEVEMENT					
ACT					
Teach/Teach	114	22.81	3.92	1.03	-3.12**
Not teach/Not teach	23	25.61	3.99		

[a] This variable was recoded as a dummy variable with 1=female, 2=male.

[b] This variable consisted of two variables (gender and teaching level) which were recoded as a dummy variable with 1=female elementary teacher and 0=not a female elementary teacher.

[c] This variable consisted of two variables (gender and teaching level) which was recoded as a dummy variable with 1=male secondary teacher and 0=not a male secondary teacher.

TABLE 2 (continued)

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
Admit GPA[d]					
Teach/Teach	164	3.03	0.47	1.21	-0.01
Not teach/Not teach	36	3.03	0.52		
Graduating GPA[d]					
Teach/Teach	164	3.24	0.38	1.54	0.83
Not teach/Not teach	36	3.17	0.47		
High School Rank[e]					
Teach/Teach	120	20.80	16.19	1.18	0.71
Not teach/Not teach	26	18.27	17.56		

[d] GPA based on 4.0 scale.
[e] A ranking of one would be first percentile. A lower score indicates a higher ranking in high school class.
* Significant difference at .05 level.
** Significant difference at .01 level.

TABLE 3

Preparation Program Factors - Comparison by One Year Career Path Group

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
STUDENT TEACHING					
Satisfaction with geographical location[a]					
Teach/Teach	164	4.37	1.04	1.42	-1.01
Not teach/Not teach	36	4.56	0.88		
Satisfaction with cooperating teaching[a]					
Teach/Teach	164	4.52	0.71	1.74*	0.31
Not teach/Not teach	36	4.47	0.94		
Satisfaction with university supervisor[a]					
Teach/Teach	164	4.29	1.89	1.26	1.71
Not teach/Not teach	36	4.17	1.00		
SENSE OF EFFICACY					
Self-evaluation as a teacher[b]					
Teach/Teach	162	4.51	0.61	1.52	1.46
Not teach/Not teach	36	4.33	0.76		
Perceived adequacy of preparation in planning and delivering instruction[c]					
Teach/Teach	164	3.71	0.58	1.45	0.34
Not teach/Not teach	36	3.67	0.70		
Perceived adequacy of preparation in developing interpersonal relationships and dealing with individual differences[c]					
Teach/Teach	164	3.40	0.72	1.24	-0.29
Not teach/Not teach	36	3.44	0.80		

[a] Rating scale for this item ranged from 1 to 5, with 1=very dissatisfied, 2=dissatisfied, 3=neutral, 4=satisfied, 5=very satisfied.

[b] Rating scale for item ranged from 1 to 5, with 1=inadequate, 2=below average, 3=average, 4=better than average, 5=excellent.

[c] Rating scale for item ranged from 1 to 5 with 1=very inadequate, 2=inadequate, 3=neutral, 4=adequate, 5=very adequate.

* Significant difference at .05 level.

** Significant difference at .01 level.

TABLE 3 (continued)

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
Perceived adequacy of preparation in assessing and dealing with learning problems[c]					
Teach/Teach	162	3.26	0.89	1.02	-0.92
Not teach/Not teach	36	3.41	0.88		
Perceived adequacy of preparation in testing and evaluating students[c]					
Teach/Teach	164	3.37	0.81	1.34	-1.30
Not teach/Not teach	36	3.56	0.70		
Perceived adequacy of preparation in developing your own teaching style[c]					
Teach/Teach	164	3.53	0.54	1.74*	0.09
Not teach/Not teach	36	3.52	0.72		
Perceived adequacy of preparation in ability to prepare and use instructional media[c]					
Teach/Teach	164	3.83	0.94	1.30	-1.00
Not teach/Not teach	36	4.00	0.83		
Perceived adequacy of preparation in techniques in infusing multicultural learning[c]					
Teach/Teach	164	4.02	0.98	1.08	0.13
Not teach/Not teach	36	4.00	1.01		
TEACHING PERFORMANCE					
Self-appraisal of learning environment performance[d]					
Teach/Teach	164	8.41	0.89	2.18**	2.16*
Not teach/Not teach	36	7.91	1.31		

[c] Rating scale for item ranged from 1 to 5, with 1=very inadequate, 2=inadequate, 3=neutral, 4=adequate, 5=very adequate.

[d] Rating scale for this item ranged from 0 (very low) to 10 (very high).

TABLE 3 (continued)

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
Self-appraisal of teaching behavior performance[d]					
Teach/Teach	164	8.39	0.88	2.26**	1.80
Not teach/Not teach	36	7.97	1.32		
Self-appraisal in managing instructional activities efficiently and ensuring student time on task[d]					
Teach/Teach	164	7.84	1.30	1.56	2.03*
Not teach/Not teach	36	7.33	1.62		
Self-appraisal in demonstrating sensitivity toward students[d]					
Teach/Teach	164	9.13	1.14	1.21	1.02
Not teach/Not teach	36	8.92	1.25		
Self-appraisal in accommodating a variety of abilities and skills[d]					
Teach/Teach	163	8.09	1.30	2.02**	1.12
Not teach/Not teach	36	7.72	1.85		
Self-appraisal in using a variety of instructional resources[d]					
Teach/Teach	163	8.23	1.38	1.91**	1.34
Not teach/Not teach	36	7.78	1.90		
QUALITY OF PREPARATION PROGRAMS					
Perceived quality of preparation program[e]					
Teach/Teach	161	7.09	1.62	1.47	2.19*
Not teach/Not teach	35	6.40	1.96		

[e] Rating scale for this item ranged from 0 (very poor) to 10 (very high)

Presented in Tables 4 and 5 are the results of the comparison between the teachers and nonteachers on Employment Factors. Those who entered teaching, compared to those who did not, differed significantly on four of the 14 employment factors. Those who were teaching at one year were significantly more likely than those who were not to report employment expectations at the time of graduation that included humanity/service rewards (opportunity to help and serve others, effect social change, and work with people rather than things). They also were likely to report that at one year their jobs provided significantly more opportunity for humanity/service rewards.

Those who did not enter teaching, however, reported that the jobs they held at one year following graduation provided greater extrinsic rewards than did those who were teaching. Those who were not teaching also were significantly more likely than those who were to be certified to teach at the secondary level.

When the two groups were compared on Indicators of Career Satisfaction (Tables 6, 7, and 8), there were significant differences between the teachers and nonteachers on three of the four variables. The teachers were significantly more satisfied with their student teaching experience than were the nonteachers. Those who were teaching the year following graduation also were more likely than those who were not to report both at the time of graduation and at one year following graduation that if they had it to do over, they would again prepare to become a teacher.

TABLE 4
Employment Factors -- Comparison by One Year Career Path Group

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
EMPLOYMENT EXPECTATIONS AT TIME[a] OF GRADUATION					
Challenge/Leadership					
Teach/Teach	164	4.16	0.42	1.36	1.03
Not teach/Not teach	35	4.08	0.49		
Extrinsic rewards					
Teach/Teach	164	3.78	0.52	1.01	-0.73
Not teach/Not teach	35	3.85	0.52		
Empowerment					
Teach/Teach	164	4.36	0.41	1.50	1.61
Not teach/Not teach	35	4.24	0.50		
Humanity/Service					
Teach/Teach	164	4.46	0.41	1.83*	3.07**
Not teach/Not teach	35	4.15	0.56		
EMPLOYMENT REALITY AT ONE YEAR[b]					
Challenge/Leadership					
Teach/Teach	150	4.03	0.54	2.12**	0.70
Not teach/Not teach	25	3.91	0.78		
Extrinsic rewards					
Teach/Teach	150	3.03	0.82	1.17	-2.32*
Not teach/Not teach	25	3.45	0.88		
Empowerment					
Teach/Teach	150	4.07	0.68	1.53	1.94
Not teach/Not teach	25	3.77	0.85		

[a] Rating scale for employment expectation variables ranged from 1 to 5, with 1=very unimportant, 2=important, 3=neutral, 4=important, 5=very important.
[b] Rating scale for employment reality variables ranged from 1 to 5, with 1=never, 2=seldom, 3=some of the time, 4=most of the time, and 5=all the time.
* Significant difference at .05 level.
** Significant difference at .01 level.

TABLE 4 (continued)

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
Humanity/Service					
Teach/Teach	150	4.21	0.54	2.27**	2.18*
Not teach/Not teach	25	3.84	0.82		
EMPLOYMENT DISSONANCE BETWEEN EXPECTATIONS AND REALITY[c]					
Challenge/Leadership					
Teach/Teach	150	-0.12	0.61	1.90*	0.37
Not teach/Not teach	24	-0.19	0.84		
Extrinsic rewards					
Teach/Teach	150	-0.74	0.87	1.04	-1.92
Not teach/Not teach	24	-0.37	0.89		
Empowerment					
Teach/Teach	150	-0.31	0.73	1.57	1.22
Not teach/Not teach	24	-0.51	0.92		
Humanity/Service					
Teach/Teach	150	-0.25	0.62	2.11**	-0.08
Not teach/Not teach	24	-0.24	0.91		
TEACHING LEVEL[d]					
Elementary/secondary certification					
Teach/Teach	164	1.37	0.48	1.07	-3.72**
Not teach/Not teach	36	1.69	0.47		

[c] The score for each employment dissonance variable was calculated by subtracting the employment reality score at one year from the employment expectation score at time of graduation.

[d] This variable was recoded as a dummy variable with 1=elementary and 2=secondary.

TABLE 5

Employment Factors -- Salary Measured as Family Income at One Year by One Year Career Path Group[a]

Family Income	Teach/Teach Number (pct)	Not teach/ Not teach Number (pct)	Total Number (pct)
Less than $9,999	37 (23.4)	11 (30.6)	48 (24.7)
$10,000 - $14,999	22 (13.9)	8 (22.2)	30 (15.5)
$15,000 - $19,999	35 (22.2)	4 (11.1)	39 (20.1)
$20,000 - $24,999	18 (11.4)	6 (16.7)	24 (12.4)
$25,000 - $29,999	11 (7.0)	2 (5.6)	13 (6.7)
$30,000 - $49,999	33 (20.9)	5 (13.9)	38 (19.6)
$50,000 and over	2 (1.3)	0 (0.0)	2 (1.0)
Total	158 (100.0)	36 (100.0)	194 (100.0)

[a] Chi-square=5.62; significance=0.47; missing observations=6

TABLE 6

Indicators of Career Satisfaction -- Comparison by One Year Career Path Groups

Career Path Determinant/ Variable/Group	N	Mean	S.D.	F Ratios	T Values
SATISFACTION WITH STUDENT TEACHING					
Satisfaction with student teaching at time of graduation[a]					
Teach/Teach	160	4.53	0.64	3.38**	5.20**
Not teach/Not teach	36	3.47	1.18		
JOB SATISFACTION					
Job satisfaction at one year[b]					
Teach/Teach	152	7.11	2.06	1.36	-0.89
Not teach/Not teach	24	7.50	1.77		

[a] Rating scale for this item ranged from 1 to 5, with 1=very dissatisfied, 2=dissatisfied, 3=neutral, 4=satisfied, 5=very satisfied.

[b] Rating scale for this item ranged from 0 (very low) to 10 (very high).

* Significant difference at .05 level.

** Significant difference at .01 level.

TABLE 7

Indicators of Career Satisfaction -- Willingness at Time of Graduation to Choose Teaching Again as Career[a]

Choose Teaching Again	Teach/Teach Number (pct)	Not teach/ Not teach Number (pct)	Total Number (pct)
Yes	131 (80.4)	18 (50.0)	149 (74.9)
Undecided	25 (15.3)	14 (38.9)	39 (19.6)
No	7 (4.3)	4 (11.1)	11 (5.5)
Total	163 (100.0)	36 (100.0)	199 (100.0)

[a] Chi-square=14.46; significance=0.00; missing observations=1

TABLE 8

Indicators of Career Satisfaction -- Willingness at One Year Following Graduation to Choose Teaching Again as Career[a]

Choose Teaching Again	Teach/Teach Number (pct)	Not teach/ Not teach Number (pct)	Total Number (pct)
Yes	122 (74.8)	20 (55.6)	142 (71.4)
Undecided	34 (20.9)	10 (27.8)	44 (22.1)
No	7 (4.3)	6 (16.7)	13 (6.5)
Total	163 (100.0)	36 (100.0)	199 (100.0)

[a] Chi-square=9.09; significance=0.01; missing observations=1

SUMMARY AND CONCLUSIONS

The purpose of the study was to examine the differences between teacher education graduates who entered teaching the year following graduation and those who did not. The Career Path Model provided the framework for examining differences between the graduates and the two groups on factors in four major areas: Personal and Background Characteristics, Preparation Program Factors, Employment Factors, and Indicators of Career Satisfaction. The study yielded several findings that are worthy of discussion.

The finding that those who did not enter teaching scored significantly higher on the ACT college entrance examination than those who did lends support to the contention that the more academically able are leaving the teaching profession. The fact that significant differences between the two groups did not emerge on the other measures of academic ability/achievement indicates that the evidence is not conclusive and that additional research is needed.

The finding that those who entered teaching rated both the quality of their preparation program and their teaching performance in selected areas significantly higher than

did those who did not has important implications for teacher preparation programs. These findings suggest that improving the quality of the preparation program, particularly in the skill areas, may have a positive effect on teacher retention.

The teaching profession has long been regarded as a career attractive to those who value the opportunity to help and serve others and less attractive to those who place a high value on extrinsic rewards. It was, therefore, not surprising to find that those who entered teaching had employment expectations at the time of graduation that included the opportunity for humanity/service rewards and that their teaching jobs at one year provided this opportunity. It also was not surprising to find that those who did not enter teaching, compared to those who did, found that their nonteaching careers provided a greater opportunity for extrinsic rewards.

The finding that those in the teaching group were significantly more satisfied with their student teaching experience than were those in the nonteaching group supports findings from previous testing of the model that the student teaching experience plays a significant role in the career decisions of teacher education graduates. It appears that teacher preparation programs could contribute to teachers' decisions to remain in teaching by improving the student teaching experience.

In conclusion, the results of the study indicate that the Career Path Model provides a useful framework for examining the differences between teacher education graduates in different career path groups at one year following graduation. There were significant differences between those who entered teaching and those who did not on variables in all four of the major areas: Personal and Background Characteristics, Preparation Program Factors, Employment Factors, and Indicators of Career Satisfaction. The study also supported the inclusion in the model of additional variables related to teacher performance. The findings of the study have important implications for teacher preparation programs and for the teaching profession. As we strive to retain quality individuals in the teaching profession, we should pay careful attention to the lessons derived from research.

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